Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Extending the Life Span of a Subject

Inventors (please provide full names): Seymour Benzer

Kyung-Tai Min

Earliest Priority Filing Date: 6/29/00

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search methods of decreasing aging or

A method for extending the life span of a subject comprising administering an inhibitor of histone deacetylase to the subject in an amount effective to extend the life span.

The method of claim 1, wherein the inhibitor of histone deacetylase is a butyric acid derivative.

The method of claim 2, wherein the butyric acid derivative is selected from the group consisting of isobutyramide, monobutyrin, tributyrin, 2-phenylbutyric acid, 3-phenylbutyric acid, 4-phenylbutyric acid (PBA), phenylacetic acid, cinnamic acid, alpha-methyldihydrocinnamic acid, 3-chloropropionic acid and vinyl acetic acid.

Thanks

****

STAFF USE ONLY

Searcher: BOB

Searcher Phone #:

Searcher Location:

Date Searcher Picked Up:

Date Completed: 8-4-03

Searcher Prep & Review Time: 30

Clerical Prep Time:

Online Time: 53

Type of Search

NA Sequence (#)

AA Sequence (#)

Structure (#)

Bibliographic 1

Litigation

Fulltext

Patent Family

Other

Vendors and cost where applicable

STN 280

Dialog

Questel/Orbit

Dr.Link

Lexis/Nexis

Sequence Systems

WWW/Internet

Other (specify)

PTO-1590 (8-01)

=> fil reg; d ide l17 1-13
FILE 'REGISTRY' ENTERED AT 10:25:43 ON 04 AUG 2003

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 1 AUG 2003 HIGHEST RN 559208-49-0
DICTIONARY FILE UPDATES: 1 AUG 2003 HIGHEST RN 559208-49-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

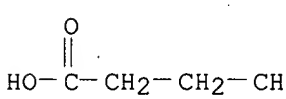
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

L17 ANSWER 1 OF 13 REGISTRY COPYRIGHT 2003 ACS on STN
RN 26999-06-4 REGISTRY
CN Butanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butyrin, mono- (6CI, 7CI, 8CI)
OTHER NAMES:
CN Butyric acid monoglyceride
CN Glycerol monobutyrate
CN **Monobutyrin**
MF C7 H14 O4
CI IDS, COM
LC STN Files: BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM, MEDLINE, TOXCENTER, USPAT2, USPATFULL
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)

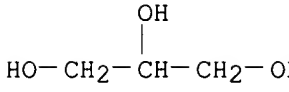
CM 1

CRN 107-92-6
CMF C4 H8 O2



CM 2

CRN 56-81-5
CMF C3 H8 O3

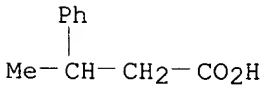


67 REFERENCES IN FILE CA (1947 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
67 REFERENCES IN FILE CAPLUS (1947 TO DATE)
7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L17 ANSWER 2 OF 13 REGISTRY COPYRIGHT 2003 ACS on STN
RN 9076-57-7 REGISTRY
CN Deacetylase, histone (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **Histone deacetylase**
MF Unspecified
CI MAN
LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CEN, CIN, EMBASE, PROMT, TOXCENTER, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
1432 REFERENCES IN FILE CA (1947 TO DATE)
28 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1439 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L17 ANSWER 3 OF 13 REGISTRY COPYRIGHT 2003 ACS on STN
RN 4593-90-2 REGISTRY
CN Benzenepropanoic acid, .beta.-methyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Hydrocinnamic acid, .beta.-methyl- (7CI, 8CI)
OTHER NAMES:
CN (.+-.)-.beta.-Phenylbutyric acid
CN (.+-.)-3-Phenylbutyric acid
CN (RS)-3-Phenylbutanoic acid
CN .beta.-Methylbenzenepropanoic acid
CN .beta.-Methylhydrocinnamic acid
CN .beta.-Phenylbutyric acid
CN 3-Phenylbutanoic acid
CN **3-Phenylbutyric acid**
CN NSC 177801
CN NSC 67346
FS 3D CONCORD
DR 772-17-8
MF C10 H12 O2
CI COM
LC STN Files: ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, HODOC*, IFICDB, IFIPAT, IFIUDB, MEDLINE, SPECINFO, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

212 REFERENCES IN FILE CA (1947 TO DATE)
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212 REFERENCES IN FILE CAPLUS (1947 TO DATE)
14 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L17 ANSWER 4 OF 13 REGISTRY COPYRIGHT 2003 ACS on STN
RN 1821-12-1 REGISTRY
CN Benzenebutanoic acid (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butyric acid, 4-phenyl- (8CI)
OTHER NAMES:
CN .gamma.-Phenylbutanoic acid
CN .gamma.-Phenylbutyric acid
CN .omega.-Phenylbutanoic acid
CN 4-Phenyl-n-butyric acid
CN 4-Phenylbutanoic acid
CN **4-Phenylbutyric acid**
CN Benzenebutyric acid
CN NSC 295
FS 3D CONCORD
MF C10 H12 O2
CI COM
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, DDFU, DIOGENES, DRUGU, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

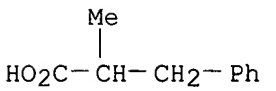
$HO_2C-(CH_2)_3-Ph$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

729 REFERENCES IN FILE CA (1947 TO DATE)
16 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
730 REFERENCES IN FILE CAPLUS (1947 TO DATE)
10 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L17 ANSWER 5 OF 13 REGISTRY COPYRIGHT 2003 ACS on STN
RN 1009-67-2 REGISTRY
CN Benzenepropanoic acid, .alpha.-methyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Hydrocinnamic acid, .alpha.-methyl- (7CI, 8CI)
OTHER NAMES:
CN (.+-.)-.alpha.-Methylbenzenepropanoic acid
CN **.alpha.-Methyldihydrocinnamic acid**
CN .alpha.-Methylhydrocinnamic acid
CN 2-Benzylpropionic acid
CN 2-Methyl-3-phenylpropionic acid
CN NSC 243716
CN Propanoic acid, 2-(phenylmethyl)-
FS 3D CONCORD
DR 5628-72-8
MF C10 H12 O2
CI COM
LC STN Files: ANABSTR, BEILSTEIN*, BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS,

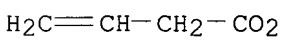
CASREACT, CHEMCATS, CHEMINFORMRX, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, MEDLINE, SPECINFO, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

131 REFERENCES IN FILE CA (1947 TO DATE)
6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
131 REFERENCES IN FILE CAPLUS (1947 TO DATE)
8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L17 ANSWER 6 OF 13 REGISTRY COPYRIGHT 2003 ACS on STN
RN **625-38-7** REGISTRY
CN 3-Butenoic acid (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN .beta.-Butenoic acid
CN Acetic acid, ethenyl-
CN NSC 44546
CN Vinylacetic acid
FS 3D CONCORD
MF C4 H6 O2
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CSCHEM, DETHERM*, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MSDS-OHS, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)

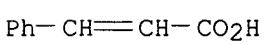


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

654 REFERENCES IN FILE CA (1947 TO DATE)
26 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
655 REFERENCES IN FILE CAPLUS (1947 TO DATE)
35 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L17 ANSWER 7 OF 13 REGISTRY COPYRIGHT 2003 ACS on STN
RN 621-82-9 REGISTRY
CN 2-Propenoic acid, 3-phenyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Cinnamic acid (7CI, 8CI)**
OTHER NAMES:
CN .beta.-Phenylacrylic acid
CN 3-Phenyl-2-propenoic acid
CN 3-Phenylacrylic acid
CN NSC 623441
CN NSC 9189
CN Phenylacrylic acid
FS 3D CONCORD
MF C9 H8 O2

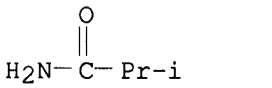
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5128 REFERENCES IN FILE CA (1947 TO DATE)
691 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5137 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L17 ANSWER 8 OF 13 REGISTRY COPYRIGHT 2003 ACS on STN
RN 563-83-7 REGISTRY
CN Propanamide, 2-methyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Isobutyramide (6CI, 8CI)**
OTHER NAMES:
CN 2-Methylpropanamide
CN 2-Methylpropionamide
CN Isobutyrimidic acid
CN Isopropylformamide
CN NSC 8423
CN VX 366
FS 3D CONCORD
MF C4 H9 N O
CI COM
LC STN Files: ADISINSIGHT, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM*, DRUGNL, DRUGU, DRUGUPDATES, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, PHAR, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

478 REFERENCES IN FILE CA (1947 TO DATE)
15 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
478 REFERENCES IN FILE CAPLUS (1947 TO DATE)
25 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L17 ANSWER 9 OF 13 REGISTRY COPYRIGHT 2003 ACS on STN
RN 107-94-8 REGISTRY
CN Propanoic acid, 3-chloro- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:
CN Propionic acid, 3-chloro- (7CI, 8CI)
OTHER NAMES:
CN .beta.-Chloropropionic acid
CN .beta.-Monochloropropionic acid
CN 3-Chloropropanoic acid
CN **3-Chloropropionic acid**
CN NSC 174
CN NSC 2183
FS 3D CONCORD
MF C3 H5 Cl O2
CI COM
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, CSNB, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

$ClCH_2-CH_2-CO_2H$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

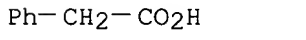
677 REFERENCES IN FILE CA (1947 TO DATE)
21 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
677 REFERENCES IN FILE CAPLUS (1947 TO DATE)
20 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L17 ANSWER 10 OF 13 REGISTRY COPYRIGHT 2003 ACS on STN
RN 107-92-6 REGISTRY
CN Butanoic acid (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Butyric acid (6CI, 7CI, 8CI)**
OTHER NAMES:
CN 1-Propanecarboxylic acid
CN Ethylacetic acid
CN Honey robber
CN n-Butanoic acid
CN n-Butyric acid
CN NSC 8415
CN Propylformic acid
FS 3D CONCORD
MF C4 H8 O2
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

17619 REFERENCES IN FILE CA (1947 TO DATE)
463 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
17637 REFERENCES IN FILE CAPLUS (1947 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L17 ANSWER 11 OF 13 REGISTRY COPYRIGHT 2003 ACS on STN
RN 103-82-2 REGISTRY
CN Benzeneacetic acid (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Acetic acid, phenyl- (6CI, 8CI)
OTHER NAMES:
CN .alpha.-Toluic acid
CN .omega.-Phenylacetic acid
CN 2-Phenylacetic acid
CN NSC 125718
CN PAA
CN **Phenylacetic acid**
CN Phenylethanoic acid
FS 3D CONCORD
MF C8 H8 O2
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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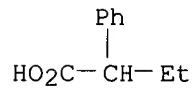
218 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5923 REFERENCES IN FILE CAPLUS (1947 TO DATE)
7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L17 ANSWER 12 OF 13 REGISTRY COPYRIGHT 2003 ACS on STN
RN 90-27-7 REGISTRY
CN Benzeneacetic acid, .alpha.-ethyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butyric acid, 2-phenyl- (8CI)
OTHER NAMES:
CN (.+-.)-.alpha.-Ethylphenylacetic acid
CN (.+-.)-.alpha.-Phenylbutyric acid
CN (.+-.)-2-Phenylbutanoic acid
CN (.+-.)-2-Phenylbutyric acid

CN (RS)-2-Phenylbutanoic acid
CN .alpha.-Ethyl-.alpha.-toluic acid
CN .alpha.-Ethylbenzeneacetic acid
CN .alpha.-Ethylphenylacetic acid
CN .alpha.-Phenylbutyric acid
CN 2-Phenylbutanoic acid
CN **2-Phenylbutyric acid**
FS 3D CONCORD
DR 7782-29-8, 14375-30-5
MF C10 H12 O2
CI COM
LC STN Files: ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

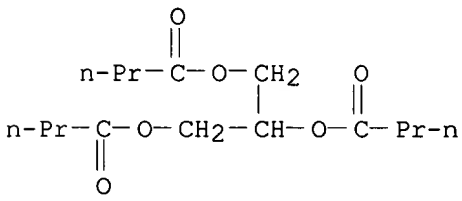


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

478 REFERENCES IN FILE CA (1947 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
478 REFERENCES IN FILE CAPLUS (1947 TO DATE)
8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L17 ANSWER 13 OF 13 REGISTRY COPYRIGHT 2003 ACS on STN
RN 60-01-5 REGISTRY
CN Butanoic acid, 1,2,3-propanetriyl ester (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butyrin, tri- (6CI, 8CI)
OTHER NAMES:
CN Butyrin
CN Butyryl triglyceride
CN Glycerin tributyrate
CN Glycerol tributanoate
CN Glycerol tributyrate
CN Glyceroltributyrin
CN Glyceryl tributanoate
CN Glyceryl tributyrate
CN NSC 661583
CN Tri-n-butyrin
CN Tributin
CN **Tributyrin**
CN Tributyroin
CN Tributyryl glyceride
CN Tributyrylglycerol
FS 3D CONCORD
MF C15 H26 O6
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM*, DIOGENES, DRUGU, EMBASE, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,

NAPRALERT, NIOSHTIC, PHAR, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

932 REFERENCES IN FILE CA (1947 TO DATE)
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933 REFERENCES IN FILE CAPLUS (1947 TO DATE)
49 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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=> fil capl; d que l28; d que l34
FILE 'CAPLUS' ENTERED AT 11:08:21 ON 04 AUG 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
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FILE COVERS 1907 - 4 Aug 2003 VOL 139 ISS 6
FILE LAST UPDATED: 3 Aug 2003 (20030803/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L4             1 SEA FILE=REGISTRY ABB=ON  "HISTONE DEACETYLASE"/CN
L5             1 SEA FILE=REGISTRY ABB=ON  BUTYRIC ACID/CN
L6             1 SEA FILE=REGISTRY ABB=ON  ISOBUTYRAMIDE/CN
L7             1 SEA FILE=REGISTRY ABB=ON  MONOBUTYRIN/CN
L8             1 SEA FILE=REGISTRY ABB=ON  TRIBUTYRIN/CN
L9             1 SEA FILE=REGISTRY ABB=ON  "2-PHENYLBUTYRIC ACID"/CN
L10            1 SEA FILE=REGISTRY ABB=ON  "3-PHENYLBUTYRIC ACID"/CN
L11            1 SEA FILE=REGISTRY ABB=ON  "4-PHENYLBUTYRIC ACID"/CN
L12            1 SEA FILE=REGISTRY ABB=ON  "PHENYLACETIC ACID"/CN
L13            1 SEA FILE=REGISTRY ABB=ON  "CINNAMIC ACID"/CN
L14            1 SEA FILE=REGISTRY ABB=ON  ".ALPHA.-METHYLDIHYDROCINNAMIC
                 ACID"/CN
L15            1 SEA FILE=REGISTRY ABB=ON  "3-CHLOROPROPIONIC ACID"/CN
L18          426 SEA FILE=CAPLUS ABB=ON  L4(L)(INHIBIT? OR ANTAGONI?)/OBI
L19          465 SEA FILE=CAPLUS ABB=ON  L5(D) -derivatives
L20        13681 SEA FILE=CAPLUS ABB=ON  (L6 OR L7 OR L8 OR L9 OR L10 OR L11 OR
                 L12 OR L13 OR L14 OR L15)
L21        39468 SEA FILE=CAPLUS ABB=ON  AGING/CW
L22         1873 SEA FILE=CAPLUS ABB=ON  LONGEVITY/CT
L23        37310 SEA FILE=CAPLUS ABB=ON  SENESCENCE/CW
L27          402 SEA FILE=CAPLUS ABB=ON  (L18 OR L19 OR L20)(L)(THU OR PAC OR
                 PKT OR DMA)/RL
L28            5 SEA FILE=CAPLUS ABB=ON  L27 AND (L21 OR L22 OR L23)
```

Roles

THU = Therapeutic use
PAC = pharmacologic activity
PKT = pharmacokinetics
DMA = drug mechanism of action

```
L4             1 SEA FILE=REGISTRY ABB=ON  "HISTONE DEACETYLASE"/CN
L5             1 SEA FILE=REGISTRY ABB=ON  BUTYRIC ACID/CN
L6             1 SEA FILE=REGISTRY ABB=ON  ISOBUTYRAMIDE/CN
L7             1 SEA FILE=REGISTRY ABB=ON  MONOBUTYRIN/CN
L8             1 SEA FILE=REGISTRY ABB=ON  TRIBUTYRIN/CN
L9             1 SEA FILE=REGISTRY ABB=ON  "2-PHENYLBUTYRIC ACID"/CN
L10            1 SEA FILE=REGISTRY ABB=ON  "3-PHENYLBUTYRIC ACID"/CN
L11            1 SEA FILE=REGISTRY ABB=ON  "4-PHENYLBUTYRIC ACID"/CN
L12            1 SEA FILE=REGISTRY ABB=ON  "PHENYLACETIC ACID"/CN
L13            1 SEA FILE=REGISTRY ABB=ON  "CINNAMIC ACID"/CN
L14            1 SEA FILE=REGISTRY ABB=ON  ".ALPHA.-METHYLDIHYDROCINNAMIC
```

```
               ACID"/CN
L15            1 SEA FILE=REGISTRY ABB=ON  "3-CHLOROPROPIONIC ACID"/CN
L18          426 SEA FILE=CAPLUS ABB=ON  L4(L)(INHIBIT? OR ANTAGONI?)/OBI
L19          465 SEA FILE=CAPLUS ABB=ON  L5/D
L20        13681 SEA FILE=CAPLUS ABB=ON  (L6 OR L7 OR L8 OR L9 OR L10 OR L11 OR
               L12 OR L13 OR L14 OR L15)
L25          759 SEA FILE=CAPLUS ABB=ON  (L18 OR L19 OR L20)(L)(BAC OR THU OR
               PAC OR PKT OR DMA)/RL
L33        14911 SEA FILE=CAPLUS ABB=ON  LIFE SPAN OR EXTEND?(2A)LIFE
L34            3 SEA FILE=CAPLUS ABB=ON  L33 AND L25
```

BAC = biological activity

```
=> s l28 or l34

L107           7 L28 OR L34

=> fil embase; d que l51; d que l54

FILE 'EMBASE' ENTERED AT 11:08:23 ON 04 AUG 2003
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 FILE COVERS 1974 TO 31 Jul 2003 (20030731/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

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 substance identification.

L37          407 SEA FILE=EMBASE ABB=ON  HISTONE DEACETYLASE INHIBITOR/CT
L38        55352 SEA FILE=EMBASE ABB=ON  AGING/CT
L39         5208 SEA FILE=EMBASE ABB=ON  SENESCENCE/CT
L40         5412 SEA FILE=EMBASE ABB=ON  LIFESPAN/CT
L41         2829 SEA FILE=EMBASE ABB=ON  LONGEVITY/CT
L50          248 SEA FILE=EMBASE ABB=ON  L37(L)(DT OR PD)/CT
L51            5 SEA FILE=EMBASE ABB=ON  L50 AND ((L38 OR L39 OR L40 OR L41))
```

DT = drug therapy
PD = pharmacology

```
L6             1 SEA FILE=REGISTRY ABB=ON  ISOBUTYRAMIDE/CN
L7             1 SEA FILE=REGISTRY ABB=ON  MONOBUTYRIN/CN
L8             1 SEA FILE=REGISTRY ABB=ON  TRIBUTYRIN/CN
L9             1 SEA FILE=REGISTRY ABB=ON  "2-PHENYLBUTYRIC ACID"/CN
L10            1 SEA FILE=REGISTRY ABB=ON  "3-PHENYLBUTYRIC ACID"/CN
L11            1 SEA FILE=REGISTRY ABB=ON  "4-PHENYLBUTYRIC ACID"/CN
L12            1 SEA FILE=REGISTRY ABB=ON  "PHENYLACETIC ACID"/CN
L13            1 SEA FILE=REGISTRY ABB=ON  "CINNAMIC ACID"/CN
L14            1 SEA FILE=REGISTRY ABB=ON  ".ALPHA.-METHYLDIHYDROCINNAMIC
               ACID"/CN
L15            1 SEA FILE=REGISTRY ABB=ON  "3-CHLOROPROPIONIC ACID"/CN
L16            1 SEA FILE=REGISTRY ABB=ON  625-38-7
L35         1372 SEA FILE=EMBASE ABB=ON  (L6 OR L7 OR L8 OR L9 OR L10 OR L11 OR
               L12 OR L13 OR L14 OR L15 OR L16)
L36          789 SEA FILE=EMBASE ABB=ON  BUTYRIC ACID DERIVATIVE/CT
L38        55352 SEA FILE=EMBASE ABB=ON  AGING/CT
L40         5412 SEA FILE=EMBASE ABB=ON  LIFESPAN/CT
L41         2829 SEA FILE=EMBASE ABB=ON  LONGEVITY/CT
L54            5 SEA FILE=EMBASE ABB=ON  (L35 OR L36) AND (L38 OR L40 OR L41)

=> s l51 or l54

L108          10 L51 OR L54
```

```
=> fil wpids; d que l73

FILE 'WPIDS' ENTERED AT 11:08:24 ON 04 AUG 2003
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FILE LAST UPDATED:          31 JUL 2003      <20030731/UP>
MOST RECENT DERWENT UPDATE:     200349        <200349/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> NEW WEEKLY SDI FREQUENCY AVAILABLE --> see NEWS  <<<

>>> PATENT IMAGES AVAILABLE FOR PRINT AND DISPLAY <<<

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    SEE http://www.derwent.com/dwpi/updates/dwpicov/index.html <<<

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 http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

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    GUIDES, PLEASE VISIT:
    http://www.derwent.com/userguides/dwpi_guide.html <<<


L56          92 SEA FILE=WPIDS ABB=ON  HISTONE DEACETYLASE(3A)(INHIBIT? OR
                ANTAGONI?)
L57         280 SEA FILE=WPIDS ABB=ON  BUTYRIC ACID(2A)DERIV?
L58          48 SEA FILE=WPIDS ABB=ON  ISOBUTYRAMIDE OR (ISOBUTYR OR ISO
                BUTYR)(W)AMIDE
L59          12 SEA FILE=WPIDS ABB=ON  MONOBUTYRIN OR (TRI OR MONO)(W) BUTYRIN

L60        1843 SEA FILE=WPIDS ABB=ON  (PHENYLACETIC OR PHENYLBUTYRIC OR
                (PHENYL(W)(ACETIC OR BUTYRIC)))(W)ACID
L61        1670 SEA FILE=WPIDS ABB=ON  (METHYLDIHYDROCINNAMIC OR CINNAMIC)(W)
                ACID
L62         238 SEA FILE=WPIDS ABB=ON  (CHLOROPROPIONIC OR CHLORO PROPIONIC)(W)
                ACID
L63         135 SEA FILE=WPIDS ABB=ON  (VINYLACETIC OR VINYL ACETIC)(W)ACID
L64       30657 SEA FILE=WPIDS ABB=ON  AGING OR AGEING
L65        6228 SEA FILE=WPIDS ABB=ON  LIFESPAN OR LIFE SPAN
L66       15779 SEA FILE=WPIDS ABB=ON  LIFE(2A)EXTEN?
L67        2343 SEA FILE=WPIDS ABB=ON  LONGEVITY
L71      599715 SEA FILE=WPIDS ABB=ON  B/DC = Pharmaceuticals
L73           6 SEA FILE=WPIDS ABB=ON  L71 AND  (L56 OR L57 OR L58 OR L59 OR
                L60 OR L61 OR L62 OR L63) (15A)(L64 OR L65 OR L66 OR L67)


=> fil biosis; d que l82; d que l88; d que l90

FILE 'BIOSIS' ENTERED AT 11:08:25 ON 04 AUG 2003
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 30 July 2003 (20030730/ED)


L75          965 SEA FILE=BIOSIS ABB=ON  HISTONE DEACETYLASE(3A)(INHIBIT? OR
```

```
              ANTAGONI?)
L76          139 SEA FILE=BIOSIS ABB=ON  BUTYRIC ACID(2A)DERIV?
L77        16135 SEA FILE=BIOSIS ABB=ON  LIFESPAN OR LIFE SPAN
L78        14085 SEA FILE=BIOSIS ABB=ON  LONGEVITY
L79        76884 SEA FILE=BIOSIS ABB=ON  AGING OR AGEING
L80         3115 SEA FILE=BIOSIS ABB=ON  LIFE(3A)EXTEN?
L82            2 SEA FILE=BIOSIS ABB=ON  (L75 OR L76)(15A)(L77 OR L78 OR L79 OR
              L80)


L6             1 SEA FILE=REGISTRY ABB=ON  ISOBUTYRAMIDE/CN
L7             1 SEA FILE=REGISTRY ABB=ON  MONOBUTYRIN/CN
L8             1 SEA FILE=REGISTRY ABB=ON  TRIBUTYRIN/CN
L9             1 SEA FILE=REGISTRY ABB=ON  "2-PHENYLBUTYRIC ACID"/CN
L10            1 SEA FILE=REGISTRY ABB=ON  "3-PHENYLBUTYRIC ACID"/CN
L11            1 SEA FILE=REGISTRY ABB=ON  "4-PHENYLBUTYRIC ACID"/CN
L12            1 SEA FILE=REGISTRY ABB=ON  "PHENYLACETIC ACID"/CN
L13            1 SEA FILE=REGISTRY ABB=ON  "CINNAMIC ACID"/CN
L14            1 SEA FILE=REGISTRY ABB=ON  ".ALPHA.-METHYLDIHYDROCINNAMIC
              ACID"/CN
L15            1 SEA FILE=REGISTRY ABB=ON  "3-CHLOROPROPIONIC ACID"/CN
L16            1 SEA FILE=REGISTRY ABB=ON  625-38-7
L74         1551 SEA FILE=BIOSIS ABB=ON  (L6 OR L7 OR L8 OR L9 OR L10 OR L11 OR
              L12 OR L13 OR L14 OR L15 OR L16)
L77        16135 SEA FILE=BIOSIS ABB=ON  LIFESPAN OR LIFE SPAN
L78        14085 SEA FILE=BIOSIS ABB=ON  LONGEVITY
L80         3115 SEA FILE=BIOSIS ABB=ON  LIFE(3A)EXTEN?
L88            2 SEA FILE=BIOSIS ABB=ON  L74 AND (L77 OR L78 OR L80)


L6             1 SEA FILE=REGISTRY ABB=ON  ISOBUTYRAMIDE/CN
L7             1 SEA FILE=REGISTRY ABB=ON  MONOBUTYRIN/CN
L8             1 SEA FILE=REGISTRY ABB=ON  TRIBUTYRIN/CN
L9             1 SEA FILE=REGISTRY ABB=ON  "2-PHENYLBUTYRIC ACID"/CN
L10            1 SEA FILE=REGISTRY ABB=ON  "3-PHENYLBUTYRIC ACID"/CN
L11            1 SEA FILE=REGISTRY ABB=ON  "4-PHENYLBUTYRIC ACID"/CN
L12            1 SEA FILE=REGISTRY ABB=ON  "PHENYLACETIC ACID"/CN
L13            1 SEA FILE=REGISTRY ABB=ON  "CINNAMIC ACID"/CN
L14            1 SEA FILE=REGISTRY ABB=ON  ".ALPHA.-METHYLDIHYDROCINNAMIC
              ACID"/CN
L15            1 SEA FILE=REGISTRY ABB=ON  "3-CHLOROPROPIONIC ACID"/CN
L16            1 SEA FILE=REGISTRY ABB=ON  625-38-7
L74         1551 SEA FILE=BIOSIS ABB=ON  (L6 OR L7 OR L8 OR L9 OR L10 OR L11 OR
              L12 OR L13 OR L14 OR L15 OR L16)
L79        76884 SEA FILE=BIOSIS ABB=ON  AGING OR AGEING
L86           13 SEA FILE=BIOSIS ABB=ON  L74 AND L79
L90            3 SEA FILE=BIOSIS ABB=ON  (SKIN OR CELLS OR DRUG)/TI AND L86

=> s l82 or l88 or l90

L109           7 L82 OR L88 OR L90

=> fil medl; d que l97

FILE 'MEDLINE' ENTERED AT 11:08:27 ON 04 AUG 2003

  FILE LAST UPDATED: 2 AUG 2003 (20030802/UP).  FILE COVERS 1958 TO DATE.

  On April 13, 2003, MEDLINE was reloaded.  See HELP RLOAD for details.
```

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2003 vocabulary. See http://www.nlm.nih.gov/mesh/changes2003.html for a description on changes.

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
L6            1 SEA FILE=REGISTRY ABB=ON  ISOBUTYRAMIDE/CN
L7            1 SEA FILE=REGISTRY ABB=ON  MONOBUTYRIN/CN
L8            1 SEA FILE=REGISTRY ABB=ON  TRIBUTYRIN/CN
L9            1 SEA FILE=REGISTRY ABB=ON  "2-PHENYLBUTYRIC ACID"/CN
L10           1 SEA FILE=REGISTRY ABB=ON  "3-PHENYLBUTYRIC ACID"/CN
L11           1 SEA FILE=REGISTRY ABB=ON  "4-PHENYLBUTYRIC ACID"/CN
L12           1 SEA FILE=REGISTRY ABB=ON  "PHENYLACETIC ACID"/CN
L13           1 SEA FILE=REGISTRY ABB=ON  "CINNAMIC ACID"/CN
L14           1 SEA FILE=REGISTRY ABB=ON  ".ALPHA.-METHYLDIHYDROCINNAMIC
                ACID"/CN
L15           1 SEA FILE=REGISTRY ABB=ON  "3-CHLOROPROPIONIC ACID"/CN
L16           1 SEA FILE=REGISTRY ABB=ON  625-38-7
L91         723 SEA FILE=MEDLINE ABB=ON   (L6 OR L7 OR L8 OR L9 OR L10 OR L11
                OR L12 OR L13 OR L14 OR L15 OR L16)
L92           1 SEA FILE=MEDLINE ABB=ON   BUTYRIC ACID/CT(L)AA/CT
L93         610 SEA FILE=MEDLINE ABB=ON   HISTONE DEACETYLASES+NT/CT(L)AI/CT
L94      117136 SEA FILE=MEDLINE ABB=ON   AGING+NT/CT
L95        6953 SEA FILE=MEDLINE ABB=ON   CELL AGING+NT/CT
L96        1548 SEA FILE=MEDLINE ABB=ON   SKIN AGING/CT
L97           6 SEA FILE=MEDLINE ABB=ON   (L91 OR L92 OR L93) AND (L94 OR L95
                OR L96)
```

=> fil uspatf; d que l106

```
FILE 'USPATFULL' ENTERED AT 11:08:27 ON 04 AUG 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 31 Jul 2003 (20030731/PD)
FILE LAST UPDATED: 31 Jul 2003 (20030731/ED)
HIGHEST GRANTED PATENT NUMBER: US6601238
HIGHEST APPLICATION PUBLICATION NUMBER: US2003145366
CA INDEXING IS CURRENT THROUGH 31 Jul 2003 (20030731/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 31 Jul 2003 (20030731/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2003
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2003

>>>  USPAT2 is now available.  USPATFULL contains full text of the     <<<
>>>  original, i.e., the earliest published granted patents or         <<<
>>>  applications.  USPAT2 contains full text of the latest US         <<<
>>>  publications, starting in 2001, for the inventions covered in     <<<
>>>  USPATFULL.  A USPATFULL record contains not only the original     <<<
>>>  published document but also a list of any subsequent              <<<
>>>  publications.  The publication number, patent kind code, and      <<<
>>>  publication date for all the US publications for an invention     <<<
>>>  are displayed in the PI (Patent Information) field of USPATFULL   <<<
>>>  records and may be searched in standard search fields, e.g., /PN, <<<
>>>  /PK, etc.                                                         <<<

>>>  USPATFULL and USPAT2 can be accessed and searched together        <<<
>>>  through the new cluster USPATALL.  Type FILE USPATALL to          <<<
>>>  enter this cluster.                                               <<<
>>>                                                                    <<<
>>>  Use USPATALL when searching terms such as patent assignees,       <<<
>>>  classifications, or claims, that may potentially change from      <<<
```

>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
L4            1 SEA FILE=REGISTRY ABB=ON  "HISTONE DEACETYLASE"/CN
L5            1 SEA FILE=REGISTRY ABB=ON  BUTYRIC ACID/CN
L6            1 SEA FILE=REGISTRY ABB=ON  ISOBUTYRAMIDE/CN
L7            1 SEA FILE=REGISTRY ABB=ON  MONOBUTYRIN/CN
L8            1 SEA FILE=REGISTRY ABB=ON  TRIBUTYRIN/CN
L9            1 SEA FILE=REGISTRY ABB=ON  "2-PHENYLBUTYRIC ACID"/CN
L10           1 SEA FILE=REGISTRY ABB=ON  "3-PHENYLBUTYRIC ACID"/CN
L11           1 SEA FILE=REGISTRY ABB=ON  "4-PHENYLBUTYRIC ACID"/CN
L12           1 SEA FILE=REGISTRY ABB=ON  "PHENYLACETIC ACID"/CN
L13           1 SEA FILE=REGISTRY ABB=ON  "CINNAMIC ACID"/CN
L14           1 SEA FILE=REGISTRY ABB=ON  ".ALPHA.-METHYLDIHYDROCINNAMIC
                ACID"/CN
L15           1 SEA FILE=REGISTRY ABB=ON  "3-CHLOROPROPIONIC ACID"/CN
L16           1 SEA FILE=REGISTRY ABB=ON  625-38-7
L98        1640 SEA FILE=USPATFULL ABB=ON  (L6 OR L7 OR L8 OR L9 OR L10 OR L11
                OR L12 OR L13 OR L14 OR L15 OR L16)
L99         127 SEA FILE=USPATFULL ABB=ON  L5/D
L100         42 SEA FILE=USPATFULL ABB=ON  L4(L)(ANTAGONI? OR INHIBIT?)/IT
L101       1621 SEA FILE=USPATFULL ABB=ON  (AGING OR AGEING)/IT
L102         71 SEA FILE=USPATFULL ABB=ON  LONGEVITY/IT
L103        386 SEA FILE=USPATFULL ABB=ON  SENESCENCE/IT
L104        228 SEA FILE=USPATFULL ABB=ON  (LIFESPAN OR LIFE SPAN OR LIFE(3A)EX
                TEN?)/IT
L105         10 SEA FILE=USPATFULL ABB=ON  (L98 OR L99 OR L100) AND (L101 OR
                L102 OR L103 OR L104)
L106          9 SEA FILE=USPATFULL ABB=ON  L105 NOT COATING/TI

=> dup rem l97,l107,l109,l108,l73,l106
FILE 'MEDLINE' ENTERED AT 11:09:20 ON 04 AUG 2003

FILE 'CAPLUS' ENTERED AT 11:09:20 ON 04 AUG 2003
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PROCESSING COMPLETED FOR L97
PROCESSING COMPLETED FOR L107
PROCESSING COMPLETED FOR L109
PROCESSING COMPLETED FOR L108
PROCESSING COMPLETED FOR L73
PROCESSING COMPLETED FOR L106
L110          36 DUP REM L97 L107 L109 L108 L73 L106 (9 DUPLICATES REMOVED)
                ANSWERS '1-6' FROM FILE MEDLINE
                ANSWERS '7-12' FROM FILE CAPLUS
                ANSWERS '13-18' FROM FILE BIOSIS
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ANSWERS '19-24' FROM FILE EMBASE
ANSWERS '25-29' FROM FILE WPIDS
ANSWERS '30-36' FROM FILE USPATFULL

=> d ibib ab hitrn 1-36; fil hom

L110 ANSWER 1 OF 36 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2003208985 MEDLINE
DOCUMENT NUMBER: 22615581 PubMed ID: 12729901
TITLE: Valproic acid, a mood stabilizer and anticonvulsant, protects rat cerebral cortical neurons from spontaneous cell death: a role of histone deacetylase inhibition.
AUTHOR: Jeong Mi Ra; Hashimoto Ryota; Senatorov Vladimir V; Fujimaki Koichiro; Ren Ming; Lee Min Soo; Chuang De-Maw
CORPORATE SOURCE: Molecular Neurobiology Section, National Institute of Mental Health, National Institutes of Health, Bldg. 10, Rm. 4C-206, 10 Center Dr MSC 1363, Bethesda, MD 20892-1363, USA.
SOURCE: FEBS LETTERS, (2003 May 8) 542 (1-3) 74-8.
Journal code: 0155157. ISSN: 0014-5793.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200306
ENTRY DATE: Entered STN: 20030506
Last Updated on STN: 20030617
Entered Medline: 20030616

AB We studied the neuroprotective effects of valproic acid (VPA), a primary mood stabilizer and anticonvulsant, in cultured rat cerebral cortical neurons (CCNs). CCNs underwent spontaneous cell death when their age increased in culture. As shown by mitochondrial activity and calcein-AM assays, treatment of CCNs with VPA starting from day 9 in vitro markedly increased viability and prolonged the life span of the cultures. The neuroprotective action of VPA was time-dependent and occurred at therapeutic levels with a maximal effect at about 0.5 mM. LiCl (1 mM) also protected CCNs from aging-induced, spontaneous cell death but less effectively. VPA-induced neuroprotection in aging CCN cultures was associated with a robust increase in histone H3 acetylation levels and the protective effect was mimicked by treatment with a histone deacetylase inhibitor, trichostatin A, but not by VPA analogs which are inactive in blocking histone deacetylase. Our results suggest a role of histone deacetylase inhibition in mediating the neuroprotective action of VPA.

L110 ANSWER 2 OF 36 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 2002079058 MEDLINE
DOCUMENT NUMBER: 21664389 PubMed ID: 11792861
TITLE: Life extension in Drosophila by feeding a drug.
AUTHOR: Kang Hyung-Lyun; Benzer Seymour; Min Kyung-Tai
CORPORATE SOURCE: Neurogenetics Branch, MSC1250, 10/3B12, National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD 20892, USA.
SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (2002 Jan 22) 99 (2) 838-43.
Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200204
ENTRY DATE: Entered STN: 20020128
Last Updated on STN: 20030105
Entered Medline: 20020429

AB We report that feeding Drosophila throughout adulthood with 4-phenylbutyrate (PBA) can significantly increase lifespan, without diminution of locomotor vigor, resistance to stress, or reproductive ability. Treatment for a limited period, either early or late in adult life, is also effective. Flies fed PBA show a global increase in histone acetylation as well as a dramatically altered pattern of gene expression, including induction or repression of numerous genes. The delay in aging may result from the altered physiological state.

L110 ANSWER 3 OF 36 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 2002050738 MEDLINE
DOCUMENT NUMBER: 21634349 PubMed ID: 11772521
TITLE: The effect of the histone deacetylase inhibitor, trichostatin A, on total histone synthesis, H1(0) synthesis and histone H4 acetylation in peripheral blood lymphocytes increases as a function of increasing age: a model study.
AUTHOR: Sourlingas Thomae G; Kypreou Katerina P; Sekeri-Pataryas Kalliope E
CORPORATE SOURCE: Institute of Biology, National Centre for Scientific Research, Demokritos, Aghia Paraskevi, 153 10 Athens, Greece.
SOURCE: EXPERIMENTAL GERONTOLOGY, (2002 Jan-Mar) 37 (2-3) 341-8. Journal code: 0047061. ISSN: 0531-5565.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200204
ENTRY DATE: Entered STN: 20020125
Last Updated on STN: 20020425
Entered Medline: 20020424

AB A pilot study was initiated in order to ascertain whether the age of the donor might affect either the induction of the expression of H1(0) or histone H4 acetylation by the very specific histone deacetylase inhibitor, trichostatin A. This was investigated in a cell system which normally does not express this linker histone variant, i.e. peripheral blood lymphocytes (PBL), which were obtained from donors of different ages (25-95 years). Forty-eight hours after activation by the mitogen phytohemaglutinin (PHA), 250 ng of trichostatin A per 10(6) cells per ml culture medium was added and cultured for an additional 24h. Assays were performed 72 h after initiation of cultures, i.e. during the S phase. It was found that in PBL, trichostatin A induced the expression of the linker histone variant, H1(0) as well as histone H4 acetylation, and, more importantly, that these effects were enhanced with increasing age of the donor. More specifically, under the influence of trichostatin A, PBL showed increasing H1(0) synthesis rates and increasing levels of histone H4 acetylation as a function of increasing age of the donor. Moreover, although trichostatin A induced an increasing expression of H1(0) with increasing age, it also concomitantly partially inhibited S phase total histone synthesis. This inhibition also increased as a function of increasing age of the donor.

L110 ANSWER 4 OF 36 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 96347589 MEDLINE
DOCUMENT NUMBER: 96347589 PubMed ID: 8756678
TITLE: Human fibroblast commitment to a senescence-like state in response to histone deacetylase inhibitors is cell cycle dependent.
AUTHOR: Ogryzko V V; Hirai T H; Russanova V R; Barbie D A; Howard B H
CORPORATE SOURCE: Laboratory of Molecular Growth Regulation, National Institute of Child Health and Human Development, Bethesda, Maryland 20892-2753, USA.

SOURCE: MOLECULAR AND CELLULAR BIOLOGY, (1996 Sep) 16 (9) 5210-8.
Journal code: 8109087. ISSN: 0270-7306.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199609
ENTRY DATE: Entered STN: 19961008
Last Updated on STN: 19990129
Entered Medline: 19960926

AB Human diploid fibroblasts (HDF) complete a limited number of cell divisions before entering a growth arrest state that is termed replicative senescence. Two histone deacetylase inhibitors, sodium butyrate and trichostatin A, dramatically reduce the HDF proliferative life span in a manner that is dependent on one or more cell doublings in the presence of these agents. Cells arrested and subsequently released from histone deacetylase inhibitors display markers of senescence and exhibit a persistent G1 block but remain competent to initiate a round of DNA synthesis in response to simian virus 40 T antigen. Average telomere length in prematurely arrested cells is greater than in senescent cells, reflecting a lower number of population doublings completed by the former. Taken together, these results support the view that one component of HDF senescence mimics a cell cycle-dependent drift in differentiation state and that propagation of HDF in histone deacetylase inhibitors accentuates this component.

L110 ANSWER 5 OF 36 MEDLINE on STN
ACCESSION NUMBER: 2002324794 MEDLINE
DOCUMENT NUMBER: 22062506 PubMed ID: 12067588
TITLE: Regulation of lifespan by histone deacetylase.
AUTHOR: Chang Karen T; Min Kyung-Tai
CORPORATE SOURCE: Neurogenetics Branch (MSC 1250), Building 10, Room 3B12, NINDS, NIH, Bethesda, MD 20892, USA.
SOURCE: Ageing Res Rev, (2002 Jun) 1 (3) 313-26. Ref: 75
Journal code: 101128963. ISSN: 1568-1637.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200209
ENTRY DATE: Entered STN: 20020618
Last Updated on STN: 20021030
Entered Medline: 20020909

AB Aging is a universal biological phenomenon in eukaryotes, but why and how we age still remain mysterious. It would be of great biological interest and practical importance if we could uncover the molecular mechanism of aging, and find a way to delay the aging process while maintaining physical and mental strengths of youth. Histone deacetylases (HDACs) such as SIR2 and RPD3 are known to be involved in the extension of lifespan in yeast and Caenorhabditis elegans. An inhibitor of HDACs, phenylbutyrate, also can significantly increase the lifespan of Drosophila, without diminution of locomotor vigor, resistance to stress, or reproductive ability. Treatment for a limited period, either early or late in adult life, is also effective. Alteration in the pattern of gene expression, including induction or repression of numerous genes involved in longevity by changing the level and the pattern of histone acetylation may be an important factor in determining the longevity of animals.

L110 ANSWER 6 OF 36 MEDLINE on STN
ACCESSION NUMBER: 96260681 MEDLINE
DOCUMENT NUMBER: 96260681 PubMed ID: 8706797

TITLE: Replicative senescence: considerations relating to the stability of heterochromatin domains.
AUTHOR: Howard B H
CORPORATE SOURCE: Laboratory of Molecular Growth Regulation, National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, Maryland 20892-2753, USA.
SOURCE: EXPERIMENTAL GERONTOLOGY, (1996 Jan-Apr) 31 (1-2) 281-93.
Ref: 79
Journal code: 0047061. ISSN: 0531-5565.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199609
ENTRY DATE: Entered STN: 19960919
Last Updated on STN: 19960919
Entered Medline: 19960911

AB Replicative senescence of human diploid fibroblasts (HDF) cultured in vitro is characterized by a progressive and irreversible loss of responsiveness to mitogenic stimulation by serum. While some constraints have been placed on the nature of HDF senescence, its underlying molecular mechanism(s) remain obscure. Here, the possibility is considered that defects in cell cycle-coupled reassembly of repressive chromatin domains may contribute to HDF senescence. Features of this model are discussed in relation to established models of HDF senescence based on telomere shortening and loss of DNA methylation.

L110 ANSWER 7 OF 36 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2003:319452 CAPLUS
DOCUMENT NUMBER: 138:314630
TITLE: Orthomolecular sulfo-adenosylmethionine derivatives with antioxidant properties
INVENTOR(S): Wilburn, Michael D.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 17 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003078231	A1	20030424	US 2001-886612	20010622

PRIORITY APPLN. INFO.: US 2001-886612 20010622
OTHER SOURCE(S): MARPAT 138:314630

AB Disclosed are orthomol. sulfo-adenosylmethionine deriv. compds., compns., and their uses for effecting a biol. activity in an animal, such as neurochem. activity; liver biol. activity; heart and artery function; cartilage, bone and joint health; stomach and/or intestinal lining resistance to ulceration; immune function; cell membrane integrity; and pain and inflammation. The compds. of the present invention are further useful for preventing or treating diseases or conditions; treating viral infections, infectious diseases, leukemia, and obesity; and reducing the risk of Sudden Infant Death Syndrome in an animal. The compds. of the present invention are I (R1 = H, C1-C10 alkyl, C2-C10 alkenyl or alkynyl, -C(O)R2; R2 = C1-C10 alkyl, C2-C10 alkenyl or alkynyl; Q = -C(NH3)C(O)AX, -C(COOH)NHX; A = O, N; X = a defined reaction product) or pharmaceutically acceptable salt, ester or solvate thereof. .alpha.-(S-adenosylmethionine)-O-tocopherol was prepd. from N-Acetyl-S-benzyl-L-homocysteine, .alpha.-tocopherol, and 5'-O-p-Tolylsulfonyladenosine.

IT **107-92-6D**, Butyric acid, reaction products with S-adenosyl-L-methionine derivs.
RL: BSU (Biological study, unclassified); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(orthomol. S-adenosyl-L-methionine derivs. with antioxidant properties)

L110 ANSWER 8 OF 36 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2002:658751 CAPLUS
DOCUMENT NUMBER: 137:195535
TITLE: Life extension of Drosophila by a drug treatment
INVENTOR(S): Benzer, Seymour; Min, Kyung-Tai
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 23 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002120008	A1	20020829	US 2001-895141	20010629

PRIORITY APPLN. INFO.: US 2000-215401P P 20000629

AB The present invention provides methods for **extending** the **life span** of a subject and methods for inducing mol. changes within a whole organism that are responsible for the **extended life span** of the organism; therefore, providing a whole organism system to identify mols. involved in the ageing process. The present invention provides methods for **extending** the **life span** of a subject by administering an inhibitor of histone deacetylase (e.g. butyric acid deriv.) to the subject, in an amt. effective to **extend** the **life**, of the subject. In addn., the present invention provides methods for identifying mols. that **extend** the **life span** of a subject. This method is carried out by administering to the subject a mol. of interest and an inhibitor of histone deacetylase. Also, the present invention provides methods for identifying mol. alterations in a subject administered an inhibitor of histone deacetylase to induce ageing or **extended life span** duration. The identification of a mol. alteration in the subject is done by detg. the presence, level and/or modification of nucleic acids or proteins in the subject and comparing that with mol. alterations in a subject not administered or exposed to the inhibitor of histone deacetylase.

IT **60-01-5**, Tributyrin **90-27-7**, 2-Phenylbutyric acid **103-82-2**, Phenylacetic acid, biological studies **107-92-6D**, Butyric acid, derivs. **107-94-8**, 3-Chloropropionic acid **563-83-7**, Isobutyramide **621-82-9**, Cinnamic acid, biological studies **1009-67-2**, .alpha.-Methyldihydrocinnamic acid **1821-12-1**, 4-Phenylbutyric acid **4593-90-2**, 3-Phenylbutyric acid **26999-06-4**, Monobutyrin
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(life extension of Drosophila by a drug treatment using histone deacetylase inhibitors such as butyric acid derivs. in relation to gene and protein expression)

L110 ANSWER 9 OF 36 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:922003 CAPLUS
DOCUMENT NUMBER: 137:363100
TITLE: Determining the effect of compounds on the ability of a subject to control their weight and compositions to reduce the effect of such compounds

INVENTOR(S): Buchanan-Baillie-Hamilton, Paula Frances; Peck, Julian Claude
PATENT ASSIGNEE(S): UK
SOURCE: Brit. UK Pat. Appl., 89 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2370504	A1	20020703	GB 2001-17052	20010712

PRIORITY APPLN. INFO.: GB 2000-19327 A 20000808

AB A method of detg. the extent of the effect of a target compd. on the ability of a test subject to control their wt. The method comprises the steps of detg. the degree or severity by which the compd. affects each of a plurality of wt. controlling systems present in the subject, detg. the persistence of the compd. in the subject and calcg. the effect as a function of these values. The effect of target compds. including pesticides, environmental pollutants, org. solvents and heavy metals may be detd. Wt. controlling systems that may be considered include the hormonal system, metab. and muscular activity. A method of detg. the effect of an item on the ability of a subject to control their wt. comprises detg. the amt. in the item of a plurality of target compds. which effect the ability of the subject to control their wt. A method of detg. the extent to which a subject has had their ability to control their wt. inhibited comprises detg. the amt. in the subject of a plurality of compds. which have an effect on the ability of the subject to control their wt. Compns. to reduce the effect of one or more target compds. present in a subject which effect the ability of the subject to control their wt. comprise one or more micronutrients or target compd. absorbants which reduce the level of and/or counteract the effect of the target compds. The compns. may be used in the treatment of obesity.

IT **107-92-6D**, Butyric acid, derivs.
RL: **PAC (Pharmacological activity); THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(wt. control compns. contg.; detg. the effect of compds. on ability of a subject to control their body wt. and compns. to reduce the effect of such compds. in relation to obesity treatment)

L110 ANSWER 10 OF 36 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:489226 CAPLUS
DOCUMENT NUMBER: 135:56079
TITLE: Use of a hypoglycemic agent for treating impaired glucose metabolism
INVENTOR(S): Guitard, Christiane; Muller, Beate; Emmons, Rebecca
PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis-Erfindungen Verwaltungsgesellschaft m.b.H.
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001047514	A1	20010705	WO 2000-EP12174	20001204

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,

SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1239854	A1	20020918	EP 2000-990641	20001204
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2000016631	A	20030107	BR 2000-16631	20001204
JP 2003518496	T2	20030610	JP 2001-548109	20001204
US 2001016586	A1	20010823	US 2000-731139	20001206
NO 2002002979	A	20020620	NO 2002-2979	20020620

PRIORITY APPLN. INFO.: EP 1999-125761 A 19991223
WO 2000-EP12174 W 20001204

AB The invention discloses the use of a hypoglycemic agent, or a pharmaceutically acceptable salt thereof, for the manuf. of a medicament for the prevention or delay of the progression to overt diabetes, esp. type 2, prevention or redn. of microvascular complications (e.g. retinopathy, neuropathy, nephropathy), prevention or redn. of excessive cardiovascular morbidity (eg. myocardial infarction, arterial occlusive disease, atherosclerosis and stroke) and cardiovascular mortality, prevention of cancer and redn. of cancer deaths. Addnl., the invention relates to the use of a treatment for diseases and conditions that are assocd. with impaired glucose metab., impaired glucose tolerance, or impaired fasting glucose. Formulations of nateglinide are included.

IT **103-82-2D**, Phenylacetic acid, derivs.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(hypoglycemic agent for treating impaired glucose metab.)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L110 ANSWER 11 OF 36 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1999:206407 CAPLUS
DOCUMENT NUMBER: 131:63361
TITLE: Development of nonionic surfactant/phospholipid o/w emulsion as a paclitaxel delivery system
AUTHOR(S): Kan, Pei; Chen, Zhi-Beng; Lee, Chau-Jen; Chu, I-Ming
CORPORATE SOURCE: Department of Chemical Engineering, National Tsing Hua University, Hsinchu, 300, Taiwan
SOURCE: Journal of Controlled Release (1999), 58(3), 271-278
CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Paclitaxel is an anticancer agent with low aq. soly. More extensive clin. use of this drug is somewhat delayed due to lack of appropriate delivery vehicles. An attempt was made to adopt an o/w emulsion as the drug carrier which incorporated paclitaxel in the triacylglycerol stabilized by a mixed-emulsifier system. A suitable formulation was found in this study: 0.75 mg/mL paclitaxel, oil blend 10, EPC 4, and Tween 80 3% in 2.25% glycerol soln. The formulated emulsion has very good stability when stored at 4.degree., and the paclitaxel containment efficiency can be maintained above 95% and the mean emulsion diam. around 150 nm for at least 3 mo. Paclitaxel-emulsion displayed cytotoxicity against HeLa cells with IC50 at 30 nM. The av. **life span** of ascitic-tumor-bearing mice was prolonged significantly by the treatment of paclitaxel-emulsion. The formulated emulsion is a promising carrier for paclitaxel and other lipophilic drugs.

IT **60-01-5**, Tributyrin
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(nonionic surfactant/phospholipid emulsion as paclitaxel delivery

system)
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L110 ANSWER 12 OF 36 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1992:98964 CAPLUS
DOCUMENT NUMBER: 116:98964
TITLE: Novel anticancer prodrugs of butyric acid. 2
AUTHOR(S): Nudelman, Abraham; Ruse, Margaretta; Aviram, Adina; Rabizadeh, Ester; Shaklai, Matityahu; Zimrah, Yael; Rephaeli, Ada
CORPORATE SOURCE: Chem. Dep., Bar-Ilan Univ., Ramat Gan, 52910, Israel
SOURCE: Journal of Medicinal Chemistry (1992), 35(4), 687-94
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The antitumor activity of novel prodrugs of butyric acid was examd. The in vitro effect of the compds. on induction of cytodifferentiation and on inhibition of proliferation and clonogenicity showed that (pivaloyloxy)methyl butyrate (I) was the most active drug. Structure-activity relation study suggested that its activity stemmed from hydrolytically released butyric acid. In vivo, I displayed antitumor activity in B16F0 melanoma primary cancer model, manifested by a significant increase in the **life span** of the treated animals. Murine lung tumor burden, induced by injection of the highly metastatic melanoma cells (B16F10.9), was decrease byd I. It also displayed a significant therapeutic activity against spontaneous metastases which were induced by 3LL Lewis lung carcinoma cells. Moreover, I has the advantage of low toxicity, with an acute LD50 = 1.36 g/kg). I is a potential antineoplastic agent.
IT **60-01-5**, Glycerol tributyrate
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(neoplasm inhibiting activity of, butyric acid prodrugs in relation to)

L110 ANSWER 13 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 7
ACCESSION NUMBER: 1978:241704 BIOSIS
DOCUMENT NUMBER: BA66:54201
TITLE: **DRUG** METABOLISM IN A CASE OF PROGERIA.
AUTHOR(S): CALDWELL J; SMITH R L; DAVIES S A
CORPORATE SOURCE: DEP. BIOCHEM. EXP. PHARMACOL., ST. MARY'S HOSP. MED. SCH., LONDON W2 1PG, ENGL., UK.
SOURCE: GERONTOLOGY, (1978) 24 (5), 373-380.
CODEN: GERNDJ. ISSN: 0304-324X.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB A case of premature **aging** (progeria) in a 3-yr-old Indian child is described. The conjugations of paracetamol with glucuronic acid and sulfate, of benzoic acid with glycine and of phenylacetic acid with glutamine were investigated in this child, in view of suggestions that these reactions are impaired in old age. The glucuronic acid conjugation pathway may be quantitatively less important in the progeric child than in normal children and adults.

L110 ANSWER 14 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2003:280351 BIOSIS
DOCUMENT NUMBER: PREV200300280351
TITLE: Desquamation/epidermal renewal of the **skin** and/or combating **skin aging**.
AUTHOR(S): Breton, Lionel (1); Liviero, Christel
CORPORATE SOURCE: (1) Versailles, France France

ASSIGNEE: Societe L'Oreal S.A., Paris, France
PATENT INFORMATION: US 6562353 May 13, 2003
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (May 13 2003) Vol. 1270, No. 2, pp. No Pagination. http://www.uspto.gov/web/menu/patdata.html. e-file.
ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
AB Cinnamic acid and derivatives thereof are well suited for promoting desquamation and/or stimulating epidermal renewal and/or combating intrinsic/extrinsic **aging** of the skin of a human subject in need of such treatment, by topically applying thereto, for such period of time as required to elicit the desired response, a cosmetically/therapeutically effective amount of cinnamic acid and/or of at least one derivative thereof.

L110 ANSWER 15 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2001:203667 BIOSIS
DOCUMENT NUMBER: PREV200100203667
TITLE: Inhibitory effects of chlorogenic acid and its related compounds on the invasion of hepatoma **cells** in culture.
AUTHOR(S): Yagasaki, Kazumi (1); Miura, Yutaka; Okauchi, Rieko; Furuse, Tamio
CORPORATE SOURCE: (1) Department of Applied Biological Science, Tokyo Noko University, Saiwai-cho 3-5-8, Fuchu, Tokyo, 183-8509 Japan
SOURCE: Cytotechnology, (July, 2000) Vol. 33, No. 1-3, pp. 229-235. print.
ISSN: 0920-9069.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Actions of chlorogenic acid, a major component of coffee, and its constituents, caffeic and quinic acids, on the proliferation and invasion of AH109A, a rat ascites hepatoma cell line, were investigated using in vitro assay systems. All three components suppressed the AH109A invasion at concentrations of 5-40 muM without altering the cell proliferation. At the concentration of 10 muM, chlorogenic, caffeic and quinic acids significantly ($P < 0.05$) suppressed the invasion by 68%, 36% and 31%, respectively, implying that the suppressive effect of chlorogenic acid on the AH109A invasion might result from the additive effects of its constituents, caffeic and quinic acids. At the concentration of 10 muM, cinnamic acid and p-coumaric acid (4-hydroxycinnamic acid) exerted no or little influence on the invasion, whereas caffeic acid (3,4-dihydroxycinnamic acid) significantly ($P < 0.05$) suppressed it, suggesting the possible involvement of the 3,4-dihydroxy group of caffeic acid in the suppression. Chlorogenic acid was thus demonstrated to be one of the chemical entities in coffee suppressing the hepatoma invasion in vitro, and both of its constituents, caffeic and quinic acids, to be responsible for the anti-invasive activity. These results suggest the existence of nutritionally and pharmacologically important substances in coffee which control tumor cell invasion.

L110 ANSWER 16 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1998:514353 BIOSIS
DOCUMENT NUMBER: PREV199800514353
TITLE: Neuronal apoptosis induced by histone deacetylase inhibitors.
AUTHOR(S): Salminen, Antero (1); Tapiola, Tero; Korhonen, Pauliina; Suuronen, Tiina
CORPORATE SOURCE: (1) Dep. Neurosci. Neurol., Univ. Kuopio, P.O. Box 1627, FIN-70211 Kuopio Finland

SOURCE: Molecular Brain Research, (Oct. 30, 1998) Vol. 61, No. 1-2, pp. 203-206.
ISSN: 0169-328X.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Histone acetylation has a key role in transcriptional activation, whereas deacetylation of histones correlates with the transcriptional repression and silencing of genes. Genetic repression may have an important role in neuronal **aging**, atrophy and degenerative diseases. Our aim was to study how **histone deacetylase inhibitors**, trichostatin A (TSA) and sodium butyrate, affect the metabolism of cultured rat cerebellar granule neurons and mouse Neuro-2a neuroblastoma cells. Cultured cells were exposed to 1-3 muM TSA and 1-10 mM butyrate for 1-2 days. Both of these inhibitors induced a prominent neuronal apoptosis characterized by morphological changes as well as by the activation of caspase-3 protease and subsequent cleavage of poly(ADP-ribose) polymerase, one of the caspase-3 targets. Caspase-3 activities reached the highest level on the second day after treatment, higher in the proliferating neuroblastoma cells than in the cerebellar granule neurons. Caspase-3 activation and morphological changes were prevented by cycloheximide treatment. Histone deacetylase inhibitors increased the DNA-binding activities of AP1, CREB and NF-kappaB transcription factors. These observations show that an excessive level of histone acetylation induces a stress response and an apoptotic cell death in neuronal cells.

L110 ANSWER 17 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1996:130143 BIOSIS
DOCUMENT NUMBER: PREV199698702278
TITLE: Plant regeneration from barley callus: Effects of 2,4-dichlorophenoxyacetic acid and phenylacetic acid.
AUTHOR(S): Bregitzer, Phil; Campbell, Robert D.; Wu, Ying
CORPORATE SOURCE: United States Dep. Agric., Agricultural Res. Service, P.O. Box 307, Aberdeen, ID 83210 USA
SOURCE: Plant Cell Tissue and Organ Culture, (1995) Vol. 43, No. 3, pp. 229-235.
ISSN: 0167-6857.
DOCUMENT TYPE: Article
LANGUAGE: English
AB The use of the synthetic auxin 2,4-dichlorophenoxyacetic acid (2,4-D) has played an important role in the production and maintenance of totipotent cereal callus. However, 2,4-D has been implicated in the loss of totipotency from barley callus. To examine the effect of 2,4-D on barley callus, regenerability and karyotype were examined over time as influenced by cultivar differences and 2,4-D levels, during a period in which initially vigorous plant regeneration typically declines dramatically. Higher (20.4-27.1 mu-M) versus lower (6.8-13.6 mu-M) concentrations of 2,4-D were positively associated with the number of green plantlets recovered from calli maintained for 10 and 16 weeks before transfer to regeneration media, and with the **longevity** of regenerability. There was a positive relationship between 2,4-D concentration and normal karyotype. We also investigated the use of phenylacetic acid for the initiation of regenerable barley callus. Very poor callus growth and plant regeneration was supported by phenylacetic acid.

L110 ANSWER 18 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1987:142326 BIOSIS
DOCUMENT NUMBER: BA83:71376
TITLE: CHEMICAL MANIPULATION OF SEED **LONGEVITY** AND STRESS TOLERANCE CAPACITY OF SEEDLINGS OF CORCHORUS-CAPSULARIS AND CORCHORUS-OLITORIUS.
AUTHOR(S): BHATTACHARJEE A; CHOUDHURI M A
CORPORATE SOURCE: PLANT PHYSIOL. BIOCHEM. LAB., DEP. BOT., DARJEELING GOVT. COLL., DARJEELING 734101, INDIA.

SOURCE: J PLANT PHYSIOL, (1986 (RECD 1987)) 125 (5), 391-400.
CODEN: JPPHEY.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Pretreatment of Corchorus capsularis and C. olitorius seeds with chlormequat [CCC, (2-chloroethyl) trimethyl ammonium chloride], Na-dikegulac (DK, 2,3: 4-6-di-O-isopropylidene-.alpha.-L-xylo-2-hexalofuranosate) and cinnamic acid (CIN) significantly slowed down the fall of germinability and arrested the alarming leakage of electrolytes under accelerated aging condition. The chemicals also significantly reduced the decrease of RNA and the increase of soluble carbohydrate levels in deteriorating seeds. Accelerated aging-induced damage in cellular metabolism and its substantial alleviation by the pretreating chemicals was also evidenced from the higher activities of catalase (EC 1.11.1.6.) and total dehydrogenases in chemical-pretreated seeds which experienced accelerated aging for 60 days at 95% relative humidity and 24.degree. .+-. 1 C. Seedlings developed from accelerated-aged seeds which underwent presoaking with the chemicals or distilled water prior to storage, showed differential sensitivity towards water-stress treatment. Height and dry weight of seedling, chlorophyll and protein content as well as catalase and superoxide dismutase (EC 1.15.1.1.) activities of leaves were higher in seedlings raised from the chemical-pretreated seeds. Influence of the pretreating chemicals on stress tolerance capacity of seedlings in addition to their role on the deferment of storage deterioration of seeds is discussed.

L110 ANSWER 19 OF 36 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
ACCESSION NUMBER: 2003273269 EMBASE
TITLE: Hepatotoxicity associated with non-steroidal anti-inflammatory drugs.
AUTHOR: Teoh N.C.; Farrell G.C.
CORPORATE SOURCE: Dr. G.C. Farrell, Storr Liver Unit, Westmead Millennium Institute, Univ. of Sydney at Westmead Hospital, Darcy Road, Westmead, NSW 2145, Australia.
geoff_farrell@wmi.usyd.edu.au
SOURCE: Clinics in Liver Disease, (2003) 7/2 (401-413).
Refs: 86
ISSN: 1089-3261 CODEN: CLDIF
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 037 Drug Literature Index
038 Adverse Reactions Titles
048 Gastroenterology
052 Toxicology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB NSAIDs are one of most frequently prescribed agents in clinical practice. Whereas hepatotoxicity is a rare complication of most NSAIDs (typically 1 to 10 per 100,000 persons exposed), the high level of usage means that these drugs cause liver disease. Because of their divergent chemical structures, the mechanisms and clinicopathological manifestations of hepatotoxicity vary widely. The reactive metabolite syndrome, in which serious rash, eosinophilia, and other forms of tissue injury are common, may be incited by several NSAIDs, including newer agents. Women, people aged more than 50 years, and for some drugs, the type of arthritis, may be risk factors for drug-induced liver injury. The spectrum of NSAID-drug related hepatotoxicity continues to expand, with reports of interactive toxicity in adults with hepatitis C and recognition of rare cases of liver disease associated with non-selective, selective, and preferential COX-2 inhibitors. Better outcomes require people taking NSAIDs to be aware of possible drug reactions involving the liver, and prescribers should be vigilant for early symptoms of hepatotoxicity so that incriminated agents are discontinued promptly.

L110 ANSWER 20 OF 36 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
ACCESSION NUMBER: 2003152279 EMBASE
TITLE: [Sun and sunscreens].
EL SOL Y LOS FILTROS SOLARES.
AUTHOR: Mota E.D.; Campillos Paez M.T.; Causin Serrano S.
CORPORATE SOURCE: E.D. Mota, C/ Helena de Troya, 14, 5 3, 28032 Madrid, Spain
SOURCE: MEDIFAM - Revista de Medicina Familiar y Comunitaria, (2003) 13/3 (159-165).
Refs: 25
ISSN: 1131-5768 CODEN: RMFCF3
COUNTRY: Spain
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 013 Dermatology and Venereology
016 Cancer
017 Public Health, Social Medicine and Epidemiology
LANGUAGE: Spanish
SUMMARY LANGUAGE: English; Spanish
AB Sunlight, a crucial ingredient for life, may prove harmful for the skin under some circumstances. Several related cutaneous disorders are sunburn, photodematosis, photoageing or inmunosuppression. Sunbathing with the only scope of getting a tan is not advisable. Ultraviolet rays may origin serious skin diseases. Learning to enjoy safely sun-bathing requires basic photoprotection concepts.

L110 ANSWER 21 OF 36 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
ACCESSION NUMBER: 2002371542 EMBASE
TITLE: Hormonal risk factors for breast cancer: Identification, chemoprevention, and other intervention strategies.
AUTHOR: Clamp A.; Danson S.; Clemons M.
CORPORATE SOURCE: Dr. M. Clemons, Division of Medical Oncology, Toronto-Sunnybrook Reg. Cancer Ctr., 2075 Bayview Avenue, Toronto, Ont. M4N 3M5, Canada. mark.clemons@tsrcc.on.ca
SOURCE: Lancet Oncology, (1 Oct 2002) 3/10 (611-619).
Refs: 77
ISSN: 1470-2045 CODEN: LOANBN
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 003 Endocrinology
016 Cancer
017 Public Health, Social Medicine and Epidemiology
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Breast cancer remains a leading cause of female morbidity and mortality worldwide. Many hormonal and genetic risk factors have been identified and have led to the development of mathematical models that can be used in the clinic to give a woman an estimate of her individual risk of developing breast cancer. These models can also be used to identify women who might benefit from breast-cancer chemoprevention with tamoxifen or be suitable for entry into trials with new agents. In this review, we discuss the relative merits of the Gail and Claus risk models. The Claus model is based mainly on family history, whereas the Gail model also includes simple markers of oestrogen exposure. We explore more sophisticated measures of lifetime oestrogen exposure that can be used to improve the discriminatory ability of these models. We also appraise the four trials of breast-cancer chemoprevention, including the trial that has led to licensing of tamoxifen for this indication in the USA. Finally, we discuss other agents and interventions that could be used in the future to improve the efficacy and tolerability of breast-cancer risk reduction.

L110 ANSWER 22 OF 36 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
ACCESSION NUMBER: 2002437040 EMBASE
TITLE: [Experimental and clinical pharmacology of sodium phenylbutyrate].
EXPERIMENTELLE UND KLINISCHE PHARMAKOLOGIE VON NATRIUM-PHENYLBUTYRAT.
AUTHOR: Koch H.J.; Szecsey A.; Vogel M.
CORPORATE SOURCE: Dr. H.J. Koch, Abteilung fur Gerontopsychiatrie, Psychiat. Univ. Klin. Regensburg, Universitatsrasse 84, 93053 Regensburg, Germany. horst.koch@bkr-regensburg.de
SOURCE: European Journal of Geriatrics, (2002) 4/4 (195-200).
Refs: 30
ISSN: 1439-1147 CODEN: EUGEFT
COUNTRY: Germany
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 007 Pediatrics and Pediatric Surgery
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: German
SUMMARY LANGUAGE: English; German
AB Sodium phenylbutyrate (PBA) is effective as an additional treatment of urea cycle disorders, which are characterized by hyperammonemia. Ammonia is bound to the metabolite phenylacetate by conjugation yielding phenyl-acetyl-glutamine and excreted via kidney. Moreover, PBA has been useful in patients suffering from cystic fibrosis as it improves protein transport mechanisms and therefore ameliorates the availability of the responsible channel protein. The effects of PBA with regard to gene expression and cell differentiation explains its therapeutic value in oncology, particularly in leukemias, and hematological disorders such as thalassemia. Oral doses up to 20 g per day are well tolerated and safe. Frequent side effect are female cycle disorders and metabolic alterations of the acid-base balance. Liver and hematological laboratory should be controlled regularly. PBA has improved the prognosis of children with urea cycle disorders and the quality of life of patients with cystic fibrosis. The various pharmacological properties of PBA open new therapeutic fields in oncology, haematology, degenerative diseases, geriatrics and aging.

L110 ANSWER 23 OF 36 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
ACCESSION NUMBER: 2001409405 EMBASE
TITLE: Breast cancer prevention: Present and future.
AUTHOR: Salih A.K.; Fentiman I.S.
CORPORATE SOURCE: I.S. Fentiman, Department of Surgical Oncology, Guy's Hospital, London SE1 9RT, United Kingdom
SOURCE: Cancer Treatment Reviews, (2001) 27/5 (261-273).
Refs: 125
ISSN: 0305-7372 CODEN: CTREDJ
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 016 Cancer
030 Pharmacology
033 Orthopedic Surgery
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Increased risk of breast cancer may result from modifiable factors such as endogenous hormone levels, obesity, HRT, and non-lactation, or non-modifiable factors such as genetic susceptibility or increasing age. Those factors that are easiest to modify may have a limited impact on the totality of breast cancer. The Gail model, based on known factors may be useful for estimating life-time risk in some individuals. Tamoxifen

prevention still remains contentious. In the NSABP-PI study, there was a 49% reduction in risk of breast cancer in women given tamoxifen but in the Italian and Royal Marsden trials, no effect on breast cancer incidence was detected, possibly because of the different case-mix in these studies. Raloxifene, tested in the MORE trial reduced the incidence of breast cancer by 65%. The effect was restricted to ER positive tumours: no reduction in ER negative cancers was seen. Life-style factors such as diet, obesity, exercise, and age of first full term pregnancy and number of pregnancies have a mild to moderate impact on risk and so may have little effect on the incidence of breast cancer. Reduction of alcohol intake could lead to a modest reduction in the risk of breast cancer but possibly adversely affect other diseases. So far, studies of retinoids have not shown a benefit in terms of breast cancer risk reduction. Fat reduction and GnRH analogues reduce mammographic density but have not yet been shown to affect risk. .COPYRGT. 2001 Harcourt Publishers Ltd.

L110 ANSWER 24 OF 36 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
ACCESSION NUMBER: 93168247 EMBASE
DOCUMENT NUMBER: 1993168247
TITLE: Photoaging: Cosmetic effects of sun damage.
AUTHOR: Browder J.F.; Beers B.
CORPORATE SOURCE: Dermatology/Cutaneous Surgery Div., Florida University Coll. of Medicine, PO Box 100277,Gainesville, FL 32610-0277, United States
SOURCE: Postgraduate Medicine, (1993) 93/8 (78-92).
ISSN: 0032-5481 CODEN: POMDAS
COUNTRY: United States
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 005 General Pathology and Pathological Anatomy
006 Internal Medicine
013 Dermatology and Venereology
017 Public Health, Social Medicine and Epidemiology
037 Drug Literature Index
LANGUAGE: English

L110 ANSWER 25 OF 36 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
ACCESSION NUMBER: 2003-393286 [37] WPIDS
DOC. NO. CPI: C2003-104397
TITLE: Preparation of alpha-(phenyl)**cinnamic acid** compounds used in cosmetic compositions for treating **ageing** symptoms comprises coupling **phenylacetic acid** compound and benzaldehyde compound.
DERWENT CLASS: **B05** D21 E14
INVENTOR(S): MAIGNAN, J; PASTUREL, J Y; SOLLADIE, G; PASTUREL-JACOPE, Y
PATENT ASSIGNEE(S): (OREA) L'OREAL SA
COUNTRY COUNT: 101
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003024911	A1	20030327	(200337)*	FR	42
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
FR 2829760	A1	20030321	(200337)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003024911	A1	WO 2002-FR3159	20020916
FR 2829760	A1	FR 2001-12010	20010917

PRIORITY APPLN. INFO: FR 2001-12010 20010917

AB WO2003024911 A UPAB: 20030612

NOVELTY - Preparation of alpha (phenyl)cinnamic acid compounds (I) comprises coupling a phenylacetic acid compound (II) and a benzaldehyde compound (III).

DETAILED DESCRIPTION - Preparation of alpha (phenyl)cinnamic acid compounds of formula (I) or their derivatives comprises coupling a phenylacetic acid compound of formula (II) with a benzaldehyde compound of formula (III) and deprotecting the phenol alkylated function(s) at a temperature of -78 deg. C to ambient.

n, m = 0-5;

R1, R2 = H, 1-10C alkyl, 1-10C acyl or CHR3(R4); and

R3, R4 = 1-8C alkyl, with the total number of C atoms being up to 10.

INDEPENDENT CLAIMS are also included for intermediates (II: R2 = CHR3(R4); m = 1) and (III: R1 = CHR3(R4); n = 1).

ACTIVITY - Dermatological.

MECHANISM OF ACTION - None given.

USE - Used in cosmetic compositions to reduce the glycation of proteins which include collagen and keratins. The cosmetic compositions are applied to the skin to treat symptoms of ageing due to the glycation of proteins associated with hair and nails.

ADVANTAGE - The protection of the phenol functions in (I) gives good yields and easier liberation of the phenol functions without products of degradation.

Dwg.0/0

L110 ANSWER 26 OF 36 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

ACCESSION NUMBER: 2002-538139 [57] WPIDS

DOC. NO. CPI: C2002-152603

TITLE: Novel hPER2 gene or its mutant form, that participates in the human circadian biological clock, useful as marker for diagnosing familial advanced sleep phase syndrome in human subject.

DERWENT CLASS: **B04** D16

INVENTOR(S): FU, Y; JONES, C; PTACEK, L; VIRSHUP, D

PATENT ASSIGNEE(S): (UTAH) UNIV UTAH RES FOUND

COUNTRY COUNT: 100

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002055667	A2	20020718	(200257)*	EN	70

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002055667	A2	WO 2002-US741	20020111

PRIORITY APPLN. INFO: US 2001-261054P 20010111
AB WO 200255667 A UPAB: 20020906
NOVELTY - An isolated and purified nucleic acid molecule (I), comprising a nucleotide sequence which encodes an amino acid sequence at least 80% identical to a sequence (S1) comprising 1255 amino acids fully defined in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) diagnosing (M1) advanced sleep phase syndrome in a human subject, by screening for an alteration in the germline copy of the hPER2 gene or alteration in the hPer2 polypeptide of the human subject, or screening for hypophosphorylation of hPer2 polypeptides of the human subject;

(2) screening (M2) compounds which upregulate the phosphorylation of hPER2 by casein kinase I epsilon (CKI epsilon), involves contacting a potential upregulating compound with CKI epsilon in the presence of hPER2 and phosphates, measuring the level of phosphorylation of hPER2, where a level of phosphorylation observed with the potential upregulating compound higher than a level of phosphorylation observed when CKI epsilon is contacted with hPER2 and phosphates without the potential upregulating compound signals an upregulating compound for CKI epsilon ;

(3) treating (M3) advanced sleep phase syndrome of **aging** in a human subject, by administering AzaC or a **histone deacetylase inhibitor** to the human subject;

(4) screening (M4) for inhibitors of casein kinase I delta (CKI delta), or CKI epsilon , involves contacting a potential inhibitor of CKI delta with the same or CKI epsilon with the same in the presence of hPER2 and phosphates, measuring the level of phosphorylation of the hPER2, where a level of phosphorylation observed with the potential inhibitor lower than a level of phosphorylation observed when CKI delta or CKI epsilon is contacted with hPER2 and phosphates without the potential inhibitor of CKI delta or CKI epsilon ; and

(5) screening (M6) for compounds which upregulate the phosphorylation of hPER2 by CKI delta , involves contacting a potential upregulating compound with CKI delta in the presence of hPER2 and phosphates, measuring the level of phosphorylation of the hPER2, where a level of phosphorylation observed with the potential upregulating compound higher than a level of phosphorylation observed when CKI delta is contacted with hPER2 and phosphates without the potential upregulating compound signals an upregulating compound for CKI delta .

ACTIVITY - Hypnotic; Tranquiliser; Stimulant; Sedative.

MECHANISM OF ACTION - Inhibitor of CKI epsilon and CKI delta ; Regulator of hPER2 phosphorylation. No supporting data is given.

USE - (I) is useful as genetic marker for diagnosing Familial Advanced Sleep phase syndrome in a human subject, M4 is useful for treating advanced sleep phase syndrome of aging in a human subject (all claimed).

Dwg.0/8

L110 ANSWER 27 OF 36 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
ACCESSION NUMBER: 1999-373881 [32] WPIDS
DOC. NO. CPI: C1999-110504
TITLE: Cosmetic compositions for improving skin condition - containing cinnamic acid or derivative to stimulate collagen synthesis.
DERWENT CLASS: **B02 B05** D21 E19
INVENTOR(S): BRETON, L; GIRERD, F; RENAULT, B
PATENT ASSIGNEE(S): (OREA) L'OREAL SA; (BRET-I) BRETON L; (GIRE-I) GIRERD F; (RENA-I) RENAULT B
COUNTRY COUNT: 28
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

FR 2772612	A1	19990625	(199932)*	21
EP 938891	A1	19990901	(199940)	FR
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI				
JP 11246333	A	19990914	(199948)	8
CA 2255229	A1	19990619	(199949)	FR
JP 3121582	B2	20010109	(200104)	8
US 6267971	B1	20010731	(200146)	
US 2001046509	A1	20011129	(200202)	

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
FR 2772612	A1		FR 1997-16180	19971219
EP 938891	A1		EP 1998-402959	19981126
JP 11246333	A		JP 1998-359741	19981217
CA 2255229	A1		CA 1998-2255229	19981216
JP 3121582	B2		JP 1998-359741	19981217
US 6267971	B1		US 1998-216862	19981221
US 2001046509	A1	Div ex	US 1998-216862	19981221
			US 2001-888015	20010625

FILING DETAILS:

PATENT NO	KIND		PATENT NO
JP 3121582	B2	Previous Publ.	JP 11246333
US 2001046509	A1	Div ex	US 6267971

PRIORITY APPLN. INFO: FR 1997-16180 19971219

AB FR 2772612 A UPAB: 19991207

Use of a compound (I) selected from **cinnamic acid** and its derivatives in cosmetic compositions for reducing the signs of **ageing** in the skin is new.

Also claimed are cosmetic compositions containing (I) for firming, smoothing, and/or tightening the skin, for combatting the effects of the menopause on the skin and for combatting the effects of the menopause on collagen; and cosmetic compositions containing (I) and at least one other product for stimulating collagen synthesis or lipid synthesis.

USE - (I) and its derivatives are used in cosmetic compositions for reducing the signs of ageing in the skin, for firming the skin and/or mucosa, for smoothing and/or tightening the skin, for stimulating collagen synthesis, for combatting the effects of the menopause on the skin and for combatting the effects of the menopause on collagen (all claimed).

ADVANTAGE - Cinnamic acid stimulates collagen synthesis, e.g. increasing the uptake of radio-labelled proline by normal human skin fibroblasts by 36% at a concentration of 0.1 mM (compared with 109% for vitamin C at a concentration of 20 mu g/ml).

Dwg.0/0

L110 ANSWER 28 OF 36 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
ACCESSION NUMBER: 2000-041026 [04] WPIDS
DOC. NO. CPI: C2000-010849
TITLE: Composition for improving exfoliation of skin, stimulating epidermic regeneration and/or treating intrinsic and/or extrinsic cutaneous aging.
DERWENT CLASS: **B05** D21 E14
INVENTOR(S): BRETON, L; LIVIERO, C
PATENT ASSIGNEE(S): (OREA) L'OREAL SA
COUNTRY COUNT: 27
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 962223	A1	19991208	(200004)*	FR	10
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
FR 2778560	A1	19991119	(200004)		
CA 2271263	A1	19991112	(200016)	FR	
US 6562353	B1	20030513	(200335)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 962223	A1	EP 1999-400948	19990419
FR 2778560	A1	FR 1998-5967	19980512
CA 2271263	A1	CA 1999-2271263	19990506
US 6562353	B1	US 1999-305213	19990505

PRIORITY APPLN. INFO: FR 1998-5967 19980512

AB EP 962223 A UPAB: 20000124

NOVELTY - A composition comprising cinnamic acid or its derivatives is used for improving exfoliation of the skin, stimulating the epidermic regeneration and/or treating intrinsic and/or extrinsic cutaneous aging.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the non-therapeutic treatment for improving exfoliation of the skin, stimulating the epidermic regeneration and/or treating intrinsic and/or extrinsic cutaneous **aging** by applying a cosmetic composition comprising **cinnamic acid** on the skin.

ACTIVITY - Dermatological. The exfoliation efficiency of cinnamic acid (5x10-5 M) was evaluated in vitro on human differentiated kreatinocytes by observing the release of corneocytes. The activity of cinnamic acid compared to a control (cell culture without active compound) was 59.2 % (2-hydroxy-5-octanoylbenzoic acid (5x10-5 M) from FR8506953 was 96.6 %).

MECHANISM OF ACTION - None given.

USE - The cosmetic, pharmaceutical or dermatological composition is useful for improving exfoliation of the skin, stimulating the epidermic regeneration and/or treating intrinsic and/or extrinsic cutaneous aging.

ADVANTAGE - The composition prevents side effects observed in the prior art (US4603146, EP413528, WO9310756 and US4767750) such as stinging or red patches.

Dwg.0/0

L110 ANSWER 29 OF 36 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
ACCESSION NUMBER: 1994-275851 [34] WPIDS
DOC. NO. CPI: C1994-125952
TITLE: Tyrosinase inhibitor for skin-whitening cosmetic or anti-**ageing** compsn. - contains heterocyclic cpd., di -tert. butyl-hydroxyphenyl cpd. or **cinnamic acid** deriv..
DERWENT CLASS: **B05** D22
PATENT ASSIGNEE(S): (HISM) HISAMITSU PHARM CO LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 06206805	A	19940726	(199434)*		18

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 06206805	A	JP 1992-362200	19920217

PRIORITY APPLN. INFO: JP 1992-362200 19920217
AB JP 06206805 A UPAB: 19941013
Tyrosinase inhibitor contains a heterocyclic compound, di-tert-butyl-4-hydroxyphenyl deriv. or cinnamic acid deriv.

Pref., heterocyclic compounds are benzoxazoles of formula (I), thiourea derivatives of formula (II), 2-arylimino-1,3-dithiolane derivatives of formula (III), thiazolidinone derivatives of formula (IV), sulphur-containing lactams of formula (V), 2-mercapto-4-oxopyrimidines of formula (VI), 2-mercaptoquinolines of formula (VII), calcones of formula (VIII), 3,5-di-tert. butyl-4-hydroxystyrene derivs. of formula (IX) and cinnamates of formula (X). R1, Y1 = H, halogen, alkyl, OH, alkoxy or trifluoromethyl; Z = (CHR2)nCOOR3; R2, R3 = H or alkyl; n = 0 to 9; m = 1 to 8; X = CH or N; Y2 = H, halogen, lower alkyl or alkoxy; R4 = H, lower alkyl, substd. benzyl alkoxycarbonylalkyl or indolylmethyl; R5 = lower alkyl; R6 = halogen, nitro, trifluoromethyl, OH, mercapto, lower alkoxy or alkylthio; R8, R9, R10 = H or lower alkyl; A = opt. substd. aryl or pyridyl group; 1 = 0 or 1; R11 = lower alkyl or phenyl; Ar = aromatic ring, opt. substd. by up to 3 substits.; R12 = lower alkyl, opt. substd. aryl or cyclic amino group; X1 = N or S; Y3 = O, N or alkylamino; R13 = opt. substd. benzene or heterocyclic group.

USE - The Tyrosinase inhibitor is used on the skin as a whitening cosmetic and for prevention of skin ageing (claimed).

Dwg.0/0

L110 ANSWER 30 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2002:214334 USPATFULL
TITLE: Cysteine derivatives
INVENTOR(S): Iwasaki, Keiji, Kawasaki-shi, JAPAN
Kitazawa, Manabu, Kawasaki-shi, JAPAN
Shiojiri, Eiji, Kawasaki-shi, JAPAN
Sakamoto, Kazutami, Kawasaki-shi, JAPAN
PATENT ASSIGNEE(S): AJINOMOTO CO., INC., Tokyo, JAPAN (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002115723	A1	20020822
APPLICATION INFO.:	US 2002-51099	A1	20020122 (10)

RELATED APPLN. INFO.: Division of Ser. No. US 2001-806937, filed on 14 Jun 2001, PENDING A 371 of International Ser. No. WO 1999-JP5584, filed on 8 Oct 1999, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1998-287615	19981009

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT PC, FOURTH FLOOR, 1755 JEFFERSON DAVIS HIGHWAY, ARLINGTON, VA, 22202
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
LINE COUNT: 1292
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Objects of the present invention are to provide an oxidative stress inhibitor which is capable of suppressing the expression of a cytotoxic protein and the activation of a gene transcriptional regulatory factor taking part such expression of a cytotoxic protein and exhibits good

feeling upon use and safety; to provide a method for preventing, retarding, alleviating or treating a skin change due to aging or an undesirable aesthetic skin change, both caused or promoted by an oxidative stress; and to provide a cosmetic composition or dermatologic preparation for external use comprising the oxidative stress inhibitor as an effective ingredient, and for those purposes are employed an oxidative stress inhibiting agent which comprises, as an effective ingredient, at least one selected from cysteine or cystine derivatives and the salts thereof.

IT **621-82-9D**, Cinnamic acid, derivs.
(prepn. of cysteine derivs. as oxidative stress inhibitors)

L110 ANSWER 31 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2002:61407 USPATFULL
TITLE: Transport system conjugates
INVENTOR(S): Imfeld, Dominik, Basel, SWITZERLAND
Ludin, Christian, Aesch, SWITZERLAND
Schreier, Thomas, Bubendorf, SWITZERLAND

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002035243	A1	20020321
APPLICATION INFO.:	US 2001-866824	A1	20010529 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. WO 1999-CH567, filed on 26 Nov 1999, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	CH 1998-2354	19981126

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PENNIE AND EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362711
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
LINE COUNT: 975
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to transport system conjugates as transmembrane transport systems for topical and transdermal applications, especially in dermatology and cosmetics, and for pharmaceutically active ingredients with a systemic action. The transport system according to the invention can be used for peptide active ingredients as well as for non-peptide active ingredients, such as vitamins, hormones and antibiotics. There are numerous fields of application of the topical and transdermal use of the transport system conjugates according to the present invention, including the transport of active ingredients into and through the skin for healing wound, protecting the skin, and controlling various disorders including skin aging, inflammation, cellulitis, psoriasis, melanoma, arthritis, acne, neurodermatitis, eczema, paradontitis, burns, and so forth.

IT **107-92-6DP**, Butyric acid, amides, biological studies
(derivs., conjugates with dermatol. and cosmetic agents; transport system conjugate)

L110 ANSWER 32 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2001:139544 USPATFULL
TITLE: Use of organic compounds
INVENTOR(S): Guitard, Christiane, Hegenheim, France
Muller, Beate, Hanner, Germany, Federal Republic of
Emmons, Rebecca, Riehen, Switzerland

	NUMBER	KIND	DATE

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001016586	A1	20010823
APPLICATION INFO.:	US 2000-731139	A1	20001206 (9)
PRIORITY INFORMATION:	EP 1999-125761		19991223

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: THOMAS HOXIE, NOVARTIS CORPORATION, PATENT AND TRADEMARK DEPT, 564 MORRIS AVENUE, SUMMIT, NJ, 079011027
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
LINE COUNT: 747
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to the use of a hypolipidemic agent or a pharmaceutically acceptable salt thereof for the manufacture of a medicament for the prevention or delay of the progression to overt diabetes, especially type 2, prevention or reduction of microvascular complications (eg, retinopathy, neurophathy, nephropathy), prevention or reduction of excessive cardiovascular morbidity (eg, myocardial infarction, arterial occlusive disease, atherosclerosis and stroke) and cardiovascular mortality, prevention of cancer and reduction of cancer deaths. Additionally, the invention relates to the use of a treatment for diseases and conditions that are associated with IGM, IGT or IFG.

IT **103-82-2D**, Phenylacetic acid, derivs.
(hypoglycemic agent for treating impaired glucose metab.)

L110 ANSWER 33 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2000:67758 USPATFULL
TITLE: OXA acids and related compounds for treating skin conditions
INVENTOR(S): Ptchelintsev, Dmitri, Mahwah, NJ, United States
Scancarella, Neil, Wyckoff, NJ, United States
Kalafsky, Robert, Ogdensburg, NJ, United States
PATENT ASSIGNEE(S): Avon Products, Inc., New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6069169		20000530
APPLICATION INFO.:	US 1997-863502		19970602 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1996-658089, filed on 4 Jun 1996, now patented, Pat. No. US 5847003
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Reamer, James H.
LEGAL REPRESENTATIVE: Ohlandt, Greeley, Ruggiero & Perle, LLP
NUMBER OF CLAIMS: 59
EXEMPLARY CLAIM: 1,21
LINE COUNT: 977
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to the use of compounds of Formula (I), depicted below, as active principals for treating skin conditions; compositions containing these compounds; and methods of treating skin conditions using these compounds and compositions. ##STR1## wherein R.sub.4 is (CR.sub.5 R.sub.6 --CR.sub.7 R.sub.8 --X.sub.1).sub.n --CR.sub.9 R.sub.10 R.sub.11, n is an integer from 1 to 18; R.sub.1, R.sub.2, R.sub.3, R.sub.5, R.sub.6, R.sub.7, R.sub.8, R.sub.9, R.sub.10 and R.sub.11, are independently, hydrogen or non-hydrogen substituents; and X, X.sub.1, Y and Z are independently, O, NH, or S.

IT **621-82-9D**, Cinnamic acid, derivs.
(oxo acids and related compds. for treating skin conditions)

L110 ANSWER 34 OF 36 USPATFULL on STN
ACCESSION NUMBER: 1999:88808 USPATFULL
TITLE: Oxa diacids and related compounds for treating skin conditions
INVENTOR(S): Ptchelintsev, Dmitri, Mahwah, NJ, United States
Scancarella, Neil, Wyckoff, NJ, United States
Kalafsky, Robert, Ogdensburg, NJ, United States
PATENT ASSIGNEE(S): Avon Products, Inc., New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5932229		19990803
APPLICATION INFO.:	US 1997-850333		19970502 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1996-636540, filed on 25 Apr 1996, now patented, Pat. No. US 5834513
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Venkat, Jyothsna
LEGAL REPRESENTATIVE: Ohlandt, Greeley, Ruggiero & Perle, L.L.P.
NUMBER OF CLAIMS: 32
EXEMPLARY CLAIM: 1
LINE COUNT: 915
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Described are the use of compounds of Formula (I), depicted below, as active principals for treating skin conditions; compositions containing these compounds; and methods of treating skin conditions using these compounds and compositions. ##STR1## wherein R.sub.4 is (CR.sub.5 R.sub.6 --CR.sub.7 R.sub.8 --X.sub.1).sub.n --CR.sub.9 R.sub.10 --C(.dbd.X.sub.2)X.sub.3 R.sub.11, n is an integer from 1 to 18; R.sub.1, R.sub.2, R.sub.3, R.sub.5, R.sub.6, R.sub.7, R.sub.8, R.sub.9, R.sub.10 and R.sub.11, are independently, hydrogen or non-hydrogen substituents; and X, X.sub.1, X.sub.2, X.sub.3, Y and Z are independently, O, NH, or S.
IT **621-82-9**, Cinnamic acid, biological studies
(oxa diacids and related compds. for treating skin conditions)

L110 ANSWER 35 OF 36 USPATFULL on STN
ACCESSION NUMBER: 95:52339 USPATFULL
TITLE: Modified gangliosides and the functional derivatives thereof
INVENTOR(S): Della Valle, Francesco, Padua, Italy
Romeo, Aurelio, Rome, Italy
PATENT ASSIGNEE(S): Fidia S.p.A., Abano Terme, Italy (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5424294		19950613
APPLICATION INFO.:	US 1993-138184		19931020 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1990-611700, filed on 13 Nov 1990, now patented, Pat. No. US 5264424

	NUMBER	DATE
PRIORITY INFORMATION:	IT 1989-4855489	19891114

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Robinson, Douglas W.
ASSISTANT EXAMINER: Fonda, Kathleen Kahler
NUMBER OF CLAIMS: 2
EXEMPLARY CLAIM: 1
LINE COUNT: 2605

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB N-acyl-N,N'-di-lysogangliosides, N'-acyl-N,N'-di-lysogangliosides and N,N'-diacyl-N,N'-di-lysogangliosides, in which the acyl groups are derived from an organic acid of the aliphatic, aromatic, araliphatic, alicyclic or heterocyclic series and in which at least one of the two acyl groups is not aliphatic, and their preparation are disclosed. Also disclosed is the preparation of the esters, inner esters, amides and hydroxy peracylates of these compounds and salts thereof. These compounds are useful in the treatment of pathologies of the central and peripheral nervous systems.

IT **103-82-2**, Phenylacetic acid, reactions
(acylation by, of lysoganglioside deriv.)

L110 ANSWER 36 OF 36 USPATFULL on STN

ACCESSION NUMBER:	93:98368 USPATFULL		
TITLE:	Modified gangliosides and the functional derivatives thereof		
INVENTOR(S):	Della Valle, Francesco, Padova, Italy Romeo, Aurelio, Rome, Italy		
PATENT ASSIGNEE(S):	Fidia S.p.A., Abano Terme, Italy (non-U.S. corporation)		

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5264424		19931123	
APPLICATION INFO.:	US 1990-611700		19901113	(7)

	NUMBER	DATE
PRIORITY INFORMATION:	IT 1990-4855489	19901113

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Husarik, Nancy S.
NUMBER OF CLAIMS:	4
EXEMPLARY CLAIM:	1,3
LINE COUNT:	2552

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB N-acyl-N,N'-di-lysogangliosides, N'-acyl-N,N'-di-lysogangliosides and N,N'-diacyl-N,N'-di-lysogangliosides, in which the acyl groups are derived from an organic acid of the aliphatic, aromatic, araliphatic, alicyclic or heterocyclic series and in which at least one of the two acyl groups is not aliphatic, and their preparation are disclosed. Also disclosed is the preparation of the esters, inner esters, amides and hydroxy peracylates of these compounds and salts thereof. These compounds are useful in the treatment of pathologies of the central and peripheral nervous systems.

IT **103-82-2**, Phenylacetic acid, reactions
(acylation by, of lysoganglioside deriv.)

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ACCESSION NUMBER: 1992:98964 CAPLUS
DOCUMENT NUMBER: 116:98964
TITLE: Novel anticancer prodrugs of butyric acid. 2
AUTHOR(S): Nudelman, Abraham; Ruse, Margaretta; Aviram, Adina; Rabizadeh, Ester; Shaklai, Matityahu; Zimrah, Yael; Rephaeli, Ada
CORPORATE SOURCE: Chem. Dep., Bar-Ilan Univ., Ramat Gan, 52910, Israel
SOURCE: Journal of Medicinal Chemistry (1992), 35(4), 687-94
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The antitumor activity of novel prodrugs of butyric acid was examd. The in vitro effect of the compds. on induction of cytodifferentiation and on inhibition of proliferation and clonogenicity showed that (pivaloyloxy)methyl butyrate (I) was the most active drug. Structure-activity relation study suggested that its activity stemmed from hydrolytically released butyric acid. In vivo, I displayed antitumor activity in B16F0 melanoma primary cancer model, manifested by a significant increase in the **life span** of the treated animals. Murine lung tumor burden, induced by injection of the highly metastatic melanoma cells (B16F10.9), was decrease byd I. It also displayed a significant therapeutic activity against spontaneous metastases which were induced by 3LL Lewis lung carcinoma cells. Moreover, I has the advantage of low toxicity, with an acute LD50 = 1.36 g/kg). I is a potential antineoplastic agent.

IT **60-01-5**, Glycerol tributyrate
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(neoplasm inhibiting activity of, butyric acid prodrugs in relation to)

file